PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference TXEX 515079	**FOR FURTHER ACTION**	See Form PCT/IPEA/416
International application No. PCT/EP2005/051232	International filing date *(day/month/year)* 17.03.2005	Priority date *(day/month/year)* 19.03.2004
International Patent Classification (IPC) or national classification and IPC INV. B29C70/76 B60J10/00 B29C31/04 B29C41/20 B05D1/40		
Applicant RECTICEL		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 8 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
   a. ☒ *sent to the applicant and to the International Bureau)* a total of 2 sheets, as follows:
      ☒ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
      ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
   b. ☐ *(sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒	Box No. I	Basis of the report
☐	Box No. II	Priority
☐	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
☐	Box No. IV	Lack of unity of invention
☒	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
☐	Box No. VI	Certain documents cited
☒	Box No. VII	Certain defects in the international application
☒	Box No. VIII	Certain observations on the international application

Date of submission of the demand	Date of completion of this report
19.01.2006	23.06.2006
Name and mailing address of the international preliminary examining authority: European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016	Authorized officer Mathey, X Telephone No. +31 70 340-2686

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2005/051232

Box No. I Basis of the report

1. With regard to the **language**, this report is based on

   ☒ the international application in the language in which it was filed

   ☐ a translation of the international application into , which is the language of a translation furnished for the purposes of:
   - ☐ international search (under Rules 12.3(a) and 23.1(b))
   - ☐ publication of the international application (under Rule 12.4(a))
   - ☐ international preliminary examination (under Rules 55.2(a) and/or 55.3(a))

2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-23	as originally filed

Claims, Numbers

2, 3, 5-29	as originally filed
1, 4	received on 19.01.2006 with letter of 19.01.2006

Drawings, Sheets

1/8-8/8	as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:
   - ☐ the description, pages
   - ☐ the claims, Nos.
   - ☐ the drawings, sheets/figs
   - ☐ the sequence listing *(specify)*:
   - ☐ any table(s) related to sequence listing *(specify)*:

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
   - ☐ the description, pages
   - ☐ the claims, Nos.
   - ☐ the drawings, sheets/figs
   - ☐ the sequence listing *(specify)*:
   - ☐ any table(s) related to sequence listing *(specify)*:

* *If item 4 applies, some or all of these sheets may be marked "superseded."*

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-27,29
	No:	Claims	28
Inventive step (IS)	Yes:	Claims	1-27
	No:	Claims	28,29
Industrial applicability (IA)	Yes:	Claims	1-29
	No:	Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V.

1.1 The following documents (D) are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

D1: US-A-5 421 940 (CORNILS ET AL) 6 June 1995 (1995-06-06)
D2: EP-A-0 431 534 (ASAHI GLASS COMPANY LTD) 12 June 1991 (1991-06-12)

1.2 The following is stated under reference to item VIII, whereby it is to be noted that unclear features cannot be used for unambiguously distinguishing over prior art in order to assess novelty or inventive step.

2. INDEPENDENT CLAIMS 1 AND 28.

2.1 CLAIM 1

2.1.1 Document D1 describes a method to produce a panel assembly, in particular a panel assembly for use in a vehicle opening, comprising a panel (25) and a gasket (41), which gasket is adhered to the panel, extends along at least a portion of the periphery thereof and has a surface, at least a portion of which is moulded against a solid surface (35,36), the method comprising the steps of:
- providing a mould (32) having at least one mould surface (35,36)
- placing the panel (25) and the mould surface (35) against one another
- applying a composition for producing said gasket (41) by means of an applicator device (10) moving along at least said portion of the periphery of the panel (25) while applying the composition in the open mould (32), directly or indirectly on the mould surface (35,36) and directly or indirectly onto said panel (25),
- producing the gasket (42) from said composition against said solid surface (35,36), formed at least by said panel (25) and by said mould surface (35,36), and
- removing the panel and the gasket produced thereon from the mould (32).

2.1.2 The method of claim 1 therefore differs from the method of document D1 in that

said composition is a curable composition which is allowed to cure against said solid surface to produce the gasket and that it has a dynamic viscosity, measured at a shear rate of 1/s, lower than 35000mPa.s when it arrives onto at least a portion of the mould surface.

Consequently, the subject-matter of claim 1 is new in the sense of Article 33(2) PCT.

2.1.3 The objective problem underlying claim 1 is to provide a higher design freedom and a better surface quality, cf. page 5, lines 16 - 20 in conjunction with lines 23 - 27.

The feature of "composition arriving onto at least a portion of a mould surface when having a dynamic viscosity of lower than 35.000 mPa.s, measured at a shear rate of 1/s", cf. the PCT Guidelines 12.04, is considered to be known *per se* from the prior art: Indeed, D2 describes a method to produce a panel assembly of a similar kind, in which the gasket composition is introduced onto the panel by low pressure injection. The viscosity mentioned in D2 is below 30 000 mPa.s, preferably below 10 000 mPa.s, cf. page 4, lines 1-5.
However, document D2, even though it recognizes a fluidity constraint in respect of the shaping of a gasket on a panel, cf. page 4, lines 3 and 4, relates to an *injection moulding* process in a ***closed mould***, such that the teaching of D2 would therefore *not be considered* relevant to the context of moulding onto an **open mould**.
The further feature distinguishing the subject-matter of claim 1 from the teachings of D1 is the curable character of the composition. This comes as opposed to using a thermoplastic material, which may be too viscous to take over the texture of a finely textured moulding surface. This feature therefore also contributes to solving the objective problem.

Consequently the subject-matter of claim 1 shows an inventive step in the sense of Article 33(3) PCT and the present application does meet the requirements of Article 33(1) PCT.

2.2 CLAIM 28

Since the method features contained by claim 28 cannot be employed for assessing novelty of the subject-matter of claim 28 over the teaching of D1, it is not possible to differentiate the panel assembly of D1 from that of claim 28.
Consequently, it cannot be confirmed, at this stage of the procedure, that claim 28 meets the requirements of Article 33(2) and (3) PCT.

3. DEPENDENT CLAIMS

3.1 Since claim 1 fulfills the requirements of Article 33(2) and (3) PCT, the dependent claims 2-27, inasmuch as the objections under item VIII have been resolved, also fulfill these requirements.

3.2 Claim 29, as dependent from claim 28, lacks clarity to such an extent that the presence of an inventive step in the meaning of Article 33(3) PCT cannot be confirmed.

4 Claims 1-29 fulfill the requirements of Article 33(4) PCT.

Re Item VII

1. Contrary to the Requirements of Rule 5.1(a)(ii) PCT, the relevant background disclosed in the documents D2 is not mentioned in the description, nor is this document identified therein.

Re Item VIII

The application does not meet the requirements of Article 6 PCT, because the claims are not clear.

1. Claim 2 attempts to define the process step of applying the curable composition and allowing it to cure by the pressure that would be, or, to be more precise, that ***would not be*** exerted onto the mould surface, without providing the technical features necessary for achieving this result, which results in a lack of clarity, see PCT Guidelines 5.35.

2.1 Claims 28 and 29 attempt to define a panel assembly by reference to the manufacturing method, e.g. "which is produced" or "is a free formed surface", which leads to unclarity. A product is not rendered novel in the sense of Article 33(2) PCT merely by the fact that it is produced by a new process. Either the mentioned method has an effect on the gasket surface and then the technical characteristics of the gasket surface typically caused by the chosen method must be used to define the panel assembly, or they don't, and then the claim should rather be drafted as a method claim, see PCT Guidelines 5.26.

2.2 Moreover, the following method feature: "a portion (25) of which is produced against a solid surface whilst a further portion (2) of which is produced in contact with gas", cf. claim 28, is not contained by independent method claim 1. Consequently the limitations of the subject-matter for which protection is sought as defined through independent claims 1 and 28 are not clearly defined and these claims lack clarity, cf. the PCT Guidelines 5.33.

Therefore, present claims 28 and 29 should have been formulated in terms of panel assembly features.

3. Expressions including terms like " in particular", cf. claims 1, 14, 15, 25, 28, "preferably", cf. claims 2, 6, 8, 9, 11, 12, 13, 14, 23, 24, 25, refer to optional features, which as such, when claimed, do not distinguish over the prior art teachings, cf. PCT Guidelines 5.40.

4. Concerning the expression "curable composition" in the claims, it has been

interpreted, in the light of the description, page 3, lines 13-24, as opposed to "thermoplastic material", i.e. as a composition undergoing a reaction to solidify, as opposed to just setting by cooling below a certain temperature.

CLAIMS

1. A method to produce a panel assembly, in particular a panel assembly for use in a vehicle opening, comprising a panel (2) and a gasket (1), which gasket is adhered to the panel, extends along at least a portion of the periphery thereof and has a surface, at least a portion (25) of which is moulded against a solid surface, the method comprising the steps of:

- providing a mould (7, 8) having at least one mould surface (6);
- placing the panel (2) and the mould surface (6) against one another;
- applying a composition for producing said gasket (1), by means of an applicator device (9) moving along at least said portion of the periphery of the panel (2) while applying the composition in the open mould, directly or indirectly on the mould surface and directly or indirectly onto said panel;
- producing the gasket (1) from said composition against said solid surface, formed at least by said panel (2) and by said mould surface (6); and
- removing the panel (2) and the gasket (1) produced thereon from the mould (7, 8),

characterised in that

said composition is a curable composition which is allowed to cure against said solid surface to produce the gasket (1) and which has a dynamic viscosity, measured at a shear rate of 1/s, lower than 35 000 mPa.s when it arrives onto at least a portion of the mould surface.

2. A method according to claim 1, characterised in that the curable composition is applied and allowed to cure until the gasket is produced without exerting a pressure onto the mould surface (6) which is higher than 500 mbar, preferably without exerting a pressure onto the mould surface which is higher than 350 mbar, more preferably without exerting a pressure onto the mould surface which is higher than 150 mbar and most preferably without exerting a pressure onto the mould surface which is higher than 50 mbar.

3. A method according to claim 1 or 2, characterised in that, when curing the curable composition, said solid surface only partially surrounds the gasket (1) so that said portion (25) of the surface of the gasket is allowed to cure in contact with said solid surface while a further portion (26) of the surface of the polymeric (1) is simultaneously allowed to cure in contact with a gas (19) until the gasket is produced.

4. A method according to any one of the claims 1 to 3, characterised in that, when arriving onto said portion of the mould surface (6), the dynamic viscosity of the curable composition is lower than 10 000 mPa.s and preferably lower than 5 000 mPa.s.

5. A method according to any one of the claims 1 to 4, characterised in that said curable composition is applied by means of said applicator device (9) directly onto said mould surface (6) and also directly onto said panel (2).

6. A method according to any one of the claims 1 to 5, characterised in that the curable composition is spread out in at least one direction in said applicator device (9) before leaving the applicator device, the curable composition being preferably spread out in the applicator device by dividing it in the applicator device into at least two, preferably at least three individual streams (17) leaving the applicator device and/or by spreading out at least one stream of the curable composition in said applicator device (9) so that, upon leaving the applicator device, said stream has a smallest and a largest cross-sectional dimension, the largest cross-sectional dimension (L) being greater than three times the smallest cross-sectional dimension, preferably greater than five times the smallest cross-sectional dimension and more preferably greater than ten times the smallest cross-sectional dimension.

7. A method according to any one of the claims 1 to 6, characterised in that the applicator device (9) is maintained at a distance (D) from said solid surface when applying the curable composition